March 12, 1940. A. A. AINSWORTH 2,193,545

ALBUM

Filed May 12, 1937 2 Sheets-Sheet 1

Fig. 1.

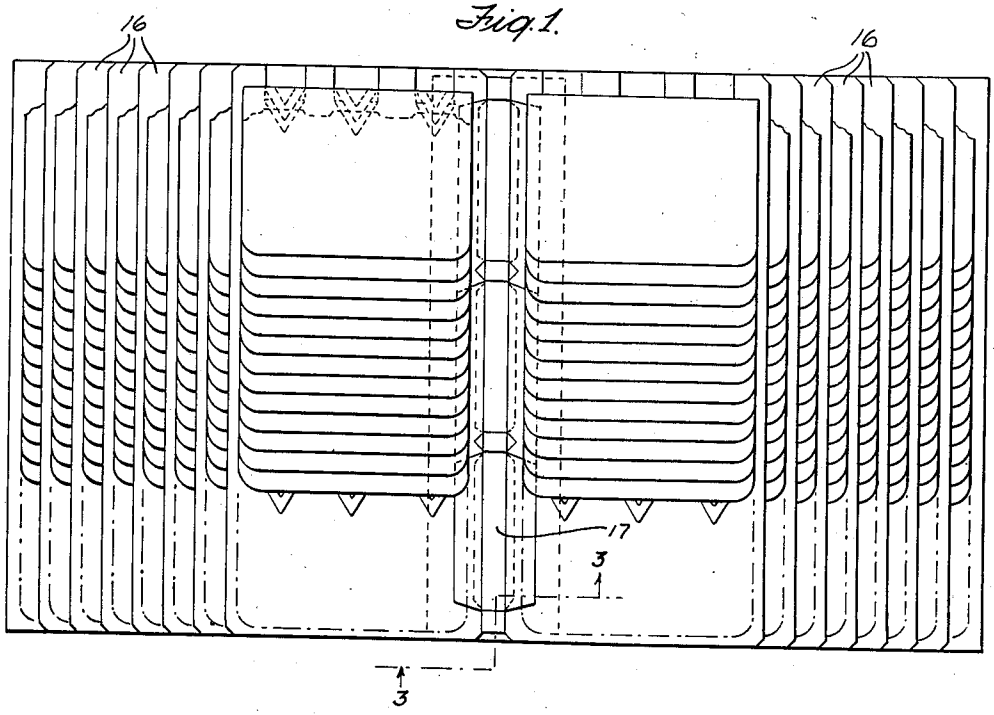
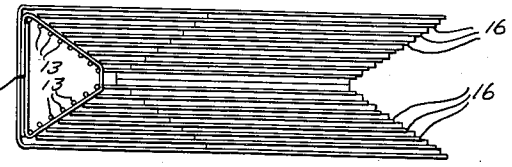


Fig. 2.



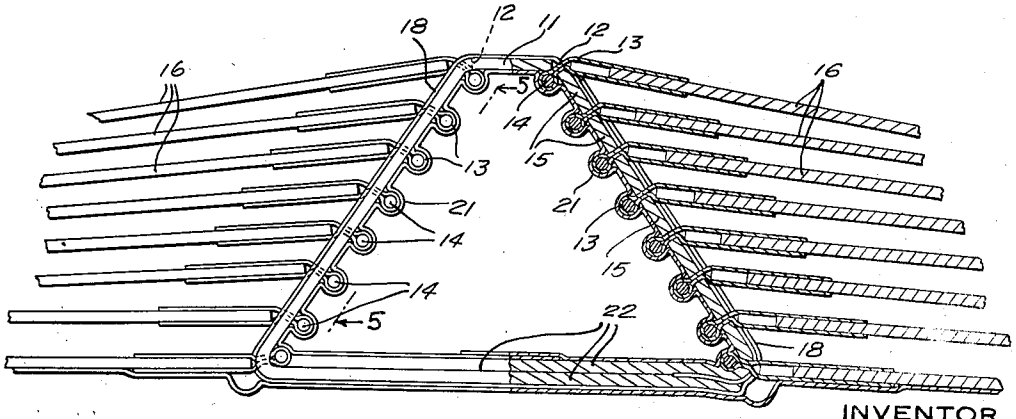


Fig. 3.

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Fig. 4.

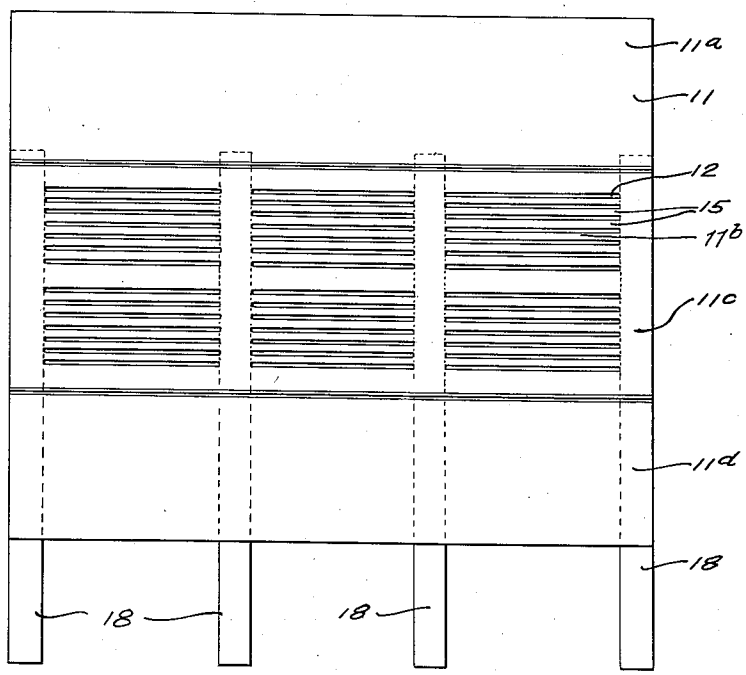
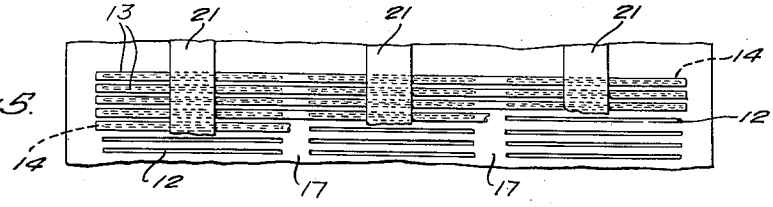


Fig. 5.



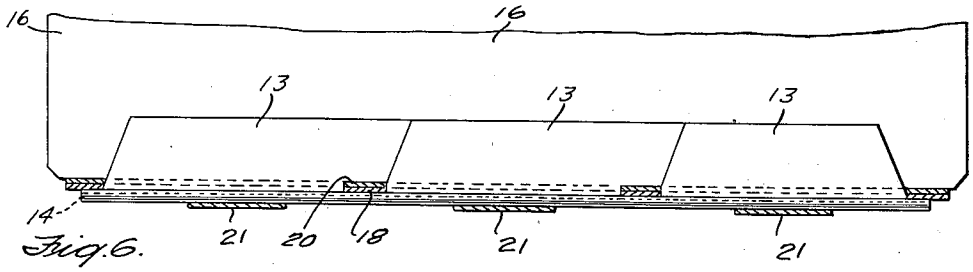


Fig. 6.

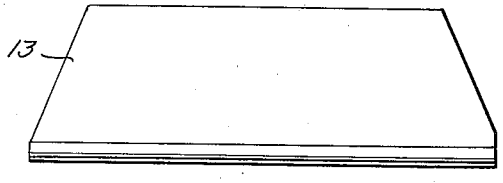


Fig. 7.

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ALBUM

Albert A. Ainsworth, Ossining, N. Y.

Application May 12, 1937, Serial No. 142,112

6 Claims. (Cl. 281—22)

This invention relates to scrap books, albums, sample books and the like, and to methods for assembling the same.

In describing the various features of this invention, reference will be had to a sample book particularly adapted to the display of textile samples; however, the invention need not be limited to this class of binders, but may have application broadly wherever a book or binder or semi-permanent character is required.

It is an object of this invention to provide a sample book or the like, with features of binding which will render the finished product inexpensive, strong and convenient, and at the same time provide a lightness of construction which will make the assembly capable of easy handling.

It is an object of this invention to provide a sample or other display book in which the leaves or sheets are secured to the backing member in spaced relation to each other so that the sheets may be used as mounting bases for samples or the like of more or less bulk without destroying their substantially parallel relationship and so that the edges of all the leaves with their samples may be viewed as a unit when the book is opened in the middle.

Another object of this invention is to provide a method of assembling an album comprising the construction of the backing member of a single flat piece of material and then forming or bending the backing member into a hollow shaped back as the final step of assembling. The advantages of this method of construction will be immediately apparent to those skilled in the art since the disadvantage of other semi-permanent binders, in that leaves must be applied after assembly by awkward manipulation in the limited space in the back of the binding, is obviated in a simple and convenient manner.

In the drawings which illustrate certain preferred embodiments of this invention and form a part of this specification:

Fig. 1 is a plan view of the album, with swatches mounted therein, open at the center, the feature of visibility of part of each sample being shown;

Fig. 2 is an end view of the album in closed position showing the parallel relationship between the various sheets;

Fig. 3 is a fragmentary sectional view through lines 3—3 of Fig. 1, partly in section, partly in end elevation;

Fig. 4 is a plan view of the outer side of the slitted backing member before assembly;

Fig. 5 is a view through the line 5—5 of Fig. 3, looking in the direction of the arrows;

Fig. 6 is a sectional view of a single hinge and sheet assembly with part of the sheet broken away;

Fig. 7 is a variation of the hinge of the invention.

In pursuance of the objects of this invention, a backing 11 of any suitable stiff light material of relatively high tensile strength, which may be heavy cardboard, light sheet metal, or the like, is provided in sheet form as shown in Fig. 4. This backing sheet in its unassembled state is provided with slits 12, corresponding in number to the number of sheets proposed to be used in the finished binder.

The slits are not necessarily limited to any particular width, it only being desirable that they be wide enough to admit the passage of hinges 13 and narrow enough to prevent the passage of hinge stoppers 14 and leave backing strips 15 between them of sufficient stiffness and strength to withstand the strain and tension which will be put on them by the manipulation of the leaves 16 when carrying full sets of mounted samples or the like, in the completely assembled album.

While the strips 15 between the slits 12 may be relied upon to support the hinges 13, and consequently the inner leaves 16, without any intermediate support, I have customarily cut the slits in sections, leaving a space of uncut sheet material 17 between the series of slits which provides additional strength to the backing assembly and also may be used as anchorage for binding material such as tape 18 which may be used to hold the backing 11 in its finally bound formation.

The hinges 13 which are inserted in these slits may be constructed from any suitable material, particularly strong, flexible material bearing adhesive substance on one face thereof, as adhesive coated linen.

The particular form or shape which the hinges take may vary, but certain shapes have been found to possess advantages over other types of construction.

Thus the hinges may be composed of gummed cloth or the like of a length equal to approximately the length of the slit in the backing piece, and of a width twice the amount needed to engage the inner sheets, so that when the hinge is folded in half with the adhesive side together, and the edges corresponding in length to the length of the slit are inserted through the slit, the sheet to be hinged may be inserted between the two gummed surfaces of the hinge and may be made to adhere thereto in the usual manner (see Figs. 3 and 7). In the form of the hinge

shown in Fig. 7 the body proper of the folded adhesive parts is slightly tapered to facilitate insertion into the slit. These hinges may be single, one for each slit, or in series, corresponding to the number of slits in the same line in the backing, with part of the hinge material cut away so as not to interfere with the supports heretofore described.

Another form of hinge is shown in Fig. 6. This construction has for its purpose increased strength and improved appearance. It is characterized by the feature that it is only cut out in the small space 20 which will permit it to pass over the supporting tape 18 so that when applied to the sheet, the appearance of a single hinge running the entire length of the page is presented, and the additional area of hinge provides additional binding strength.

As heretofore explained, the hinges 13 are inserted through the slits 12 and the sheets 16 are then adhesively connected to the gummed sides of the hinges thus presented. It is a feature of the invention that the fold of the hinge envelops and contains a stopper 14, larger in diameter than the width of the slit, so that the hinge can under no circumstances pass through the slit and become free of the back. This material may be any suitable substance, as thick cord, metal wire, strips of cardboard or the like, the material used being in this case subordinate to the purpose accomplished. This stopping means may be inserted in one piece for the entire length of the book as shown in Fig. 5, or it may be inserted in smaller pieces in this fold of individual hinges.

The excess of diameter of the stop means over the width of the slits insures that the hinges will not become free of the back when tension is exerted on the individual sheets of the book. As it is desirable to keep the stop means of the hinges in close engagement with the under edge of the slits so that the leaves will not be loosened in the binder, and slip back, the folds of the hinges containing the stop means are preferably attached to the backing member along each edge thereof and along a portion of the back by means of tape 21 or its equivalent, thus preventing any movement in space by the hinge stoppers and insuring that the leaves, as held by the hinges will retain their position in the finished book relative to the other leaves and to the back.

The sheet 11, when all the hinges are inserted, and either before or after the leaves are attached to the hinges, is folded into the position shown in Fig. 3. The slit containing portions of the sheet 11*b* and 11*c* have now become the sides of a substantially triangular prism, and the two unslitted portions 11*a* and 11*d* are laid against each other to form the base 22. While it is desirable from the standpoint of strength and stiffness to have this double back, it can be seen that a single back or even a construction without a back is possible. I have also preferred to use the substantially triangular prismatic backing member, but other shapes are possible embodying the feature of the invention.

The outside cover of the album may be attached to the backing member in the manner described for the other sheets by hinging said cover to the lowermost slit which will be located at the bottom of each side of the triangular prism. The binding part of the cover may then be suitably formed about these two outside sheets.

However, the cover may also be bound in any conventional manner to the base of a triangular prism, in which case the two lowermost slits on either of the arms of the triangular prism will be in spaced relation to the base angles, rather than at the apex of the base angles.

Since the sheets of the completed book or album are intended to be used as mounting bases for cards, photographs or textile swatches which are characterized by various thicknesses, it will be necessary to space the sheets at different distances from each other to accommodate the various thicknesses which may result from different types of samples. Thus if it is intended to use the album as a textile sample book, using, for example, woolen samples which are naturally of greater thickness than cards or photographs, it will be necessary to arrange the sheets at a relatively great distance from each other and this is very simply accomplished in the construction of the album merely by cutting the slits 12 at relatively greater distance from each other.

It will be noted that this spacing between the sheets will cause the sheets of the album to lie in a substantially parallel relationship to each other when the book is opened in the middle, the spacing being governed by the type of mounting on the sheets and controlled by the spacing between the slits, and that substantially the same relationship will exist between the sheets when the book is closed.

While I have illustrated and described in detail certain preferred forms of my invention, it is to be understood that changes may be made therein and the invention embodied in other structures. I do not, therefore, desire to limit myself to the specific construction illustrated, but intend to cover my invention broadly in whatever form its principle may be utilized.

I claim:

1. A backing member for albums comprising a sheet of rigid material folded into triangular form in which one side of the triangle has a double thickness of overlapping material, the other two sides of the triangle having rows of longitudinally extending narrow parallel slits cut therein.

2. In an album or the like, a backing member, album sheets secured to said member in stepped relation, each of said sheets containing individual mounts mounted in overlapping relation on the said sheets, the outer edges of said mounts extending close to the outer edges of the sheets, so that the outer edge of each sheet and a portion of the outer edge of each mount remote from the point at which the mount is secured to the sheet is visible when the album is open at its center.

3. In an album or the like a hollow backing member comprising a substantially triangular prism, one side of said prism being adapted to lie flat in substantially the plane of the two outermost sheets of the album when the album is open at its center, and the other two sides of the prism having sheets attached thereto at spaced positions, the sheets situated inwardly of the outermost sheets, being progressively narrower whereby the outermost edges of the sheets when the album is closed form a triangular recess each of said sheets containing individual mounts, mounted in overlapping relation, the outer edges of the mounts extending close to the outer edges of the sheets so that when the album is open at its center a portion of each individual mount on each sheet is visible.

4. In an album or the like, a hollow backing member of polygonal cross section, one wall comprising a base and the other walls having rows of longitudinally extending parallel slits cut

therein, flexible hinges having folds extending through said slits, stops of greater diameter than the width of the slits held in said folds on the under sides of the slitted walls of said hollow backing member within the hollow thereof and sheets secured to the hinges on the outer side of said backing member.

5. An album as claimed in claim 4 including binding strips overlying portions of the hinges and the hinge stops contained therein and adhesively secured to the under side of the hollow backing member at each side of said hinges.

6. An album comprising a hollow backing member having rows of longitudinally extending parallel slits cut therein and hinges inserted in said slits, said hinges comprising folds of tough flexible material gummed on the inner side thereof, said folds carrying strips of material of greater diameter than the width of said slits located inside of the backing member so as to secure the hinges to the backing member, said hinges having portions of the gummed material adjacent the folds cut away, said backing member having binding strips adhesively secured to the outside thereof, said strips extending around the backing member transversely to the axis thereof and passing through the openings in the hinges where said gummed material of said hinges is cut away.

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